AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application.

Listing of Claims:

1. (Original) A method of identifying a test compound that modulates the expression of oxytocin receptor (OXTR) gene comprising:

contacting a cell capable of expressing OXTR gene with a test compound; and

determining the level of expression of the OXTR gene in the presence of the test compound, wherein a decrease or an increase in expression of the OXTR gene, as compared to the level of expression of an OXTR gene in the absence of the compound, is indicative that the test compound modulates OXTR gene expression.

2. (Original) A method of identifying a test compound that modulates the activity of an oxytocin receptor (OXTR) protein comprising:

contacting the OXTR protein with a test compound; and

determining the level of activity of the OXTR protein in the presence of the compound, wherein a decrease or an increase in OXTR protein activity, as compared to the level of activity of the OXTR protein in the absence of the compound, is indicative that the test compound modulates OXTR protein activity.

3. (Original) A method of treating a subject having CAD comprising administering an effective amount of the compound identified in claims 1 or 2.

4. **(Cancelled)**

5. (Original) A method of treating a patient suffering from CAD comprising administering to said patient an effective amount of an antibody specific for protein OXTR.

6. (Original) A method of treating a patient suffering from CAD comprising administering to the patient an effective amount of an antisense molecule capable of binding to the mRNA of

gene oxytocin receptor (OXTR), wherein binding of the antisense molecule to the mRNA causes a decrease in expression of the protein product of gene OXTR.

7. (Original) A pharmaceutical composition comprising the compounds identified in claims 1 or 2, and a pharmaceutically acceptable adjuvant, diluent or carrier.

8. (Original) A method of making a pharmaceutical composition comprising:

contacting a cell capable of expressing oxytocin receptor (OXTR) with a test compound;

determining the level of expression of OXTR in the presence of the test compound; wherein a decrease or an increase in expression of OXTR, as compared to the level of expression of OXTR in the absence of the compound, is indicative that the test compound modulates OXTR gene expression; and

formulating the test compound that modulates OXTR into a pharmaceutical composition.

9. (Original) A method of making a pharmaceutical composition comprising:

contacting an oxytocin receptor (OXTR) protein with a test compound;

determining the level of activity of the OXTR protein in the presence of the compound, wherein a decrease or an increase in OXTR protein activity, as compared to the level of activity of the OXTR protein in the absence of the compound, is indicative that the test compound modulates OXTR protein activity; and

formulating the test compound that modulates OXTR protein activity into a pharmaceutical composition.

10. (Original) A method for determining if an oxytocin receptor (OXTR) gene has an altered level of gene expression comprising:

comparing the level of OXTR gene expression in a cell from a patient having CAD with a control cell; and

determining the level of expression of the OXTR gene in both cells, wherein a decrease or an increase in expression of the OXTR gene, as compared to the level of expression of the OXTR gene in the control cell, indicates that the OXTR has altered gene expression.

11. (Original) A method for determining the level of an oxytocin receptor (OXTR) protein in a CAD patient compared to a control comprising:

comparing the protein level of OXTR in a cell from a patient having CAD with a control cell; and

determining the level of the OXTR protein in both cells.

12. (Original) A method of identifying a binding partner of the oxytocin receptor (OXTR) protein comprising:

contacting an OXTR protein with a test target protein; and

determining if the test target protein can interact with the OXTR protein, wherein interaction of the test target protein with OXTR indicates that the test target protein is an OXTR binding partner.

13. (Original) The method of claim 12, wherein the method further comprises:

contacting a gene encoding the test target protein with a test compound; and

determining the level of expression of the test target gene in the presence of the test compound, wherein a decrease or an increase in test target gene expression, as compared to the level of expression of the test target gene in the absence of the compound, is indicative that the test compound modulates expression of the test target gene and is useful in the treatment of CAD.

14. (Original) The method of claim 12, wherein the method further comprises:

contacting the test target protein with a test compound; and

determining the level of activity of the test target protein in the presence of the test compound, wherein a decrease or an increase in test target protein activity, as compared to the level of activity of the test target protein in the absence of the compound, is indicative that the test compound modulates test target protein activity and is useful in the treatment of CAD.

15. (Original) The method of any of claims 13 or 14, wherein the test compound is formulated into a pharmaceutical composition.

16. (Original) A method of treating a subject having CAD comprising administering an effective amount of the compound identified in claims 13 or 14.

17. (Currently amended) ~~Use of~~ A pharmaceutical composition comprising a compound identified in of any of claims 13 or 14 ~~in the preparation of a medicament for the treatment of CAD~~ and a pharmaceutically acceptable adjuvant, diluent or carrier.

18. (Original) A method of identifying other components of the CAD biochemical pathway of which OXTR is a component.

19. (Original) A method of diagnosing CAD, or a susceptibility thereto in a subject, the method comprising:

determining the level of mRNA of oxytocin receptor (OXTR) in a sample from a subject; and

comparing the level of mRNA of OXTR in the sample with a control, wherein a decrease or an increase in the level of mRNA of OXTR in the sample compared to the control indicates that the subject has CAD, or a susceptibility thereto.

20. (Original) A method of diagnosing CAD or a susceptibility thereto in a subject, the method comprising:

determining the level of an oxytocin receptor (OXTR) protein in a sample from a subject; and

comparing the level of OXTR protein in the sample with a control, wherein a decrease or an increase in the level of the protein in the sample compared to the control indicates that the subject has CAD, or a susceptibility thereto.